

## PICTURE OF THE MONTH

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Afternoon thunderstorms are a common summertime occurrence along the Continental Divide. These thunderstorms are produced by the effects of local, mountainous topography, and remain relatively stationary. This ESSA 5 photomosaic (fig. 1), taken August 7, 1967, shows numerous cumulonimbus clusters stretching from southern

Mexico northward into Utah, Colorado, and southern Wyoming (A,B). The identification of these mature storms is facilitated by their high reflectivity and cirriform anvils or plumes which have a fuzzy appearance.

The tops of the thunderstorms in figure 1 ranged from 20,000 ft. at 30°N. to 39,000 ft. at 42°N. The map in

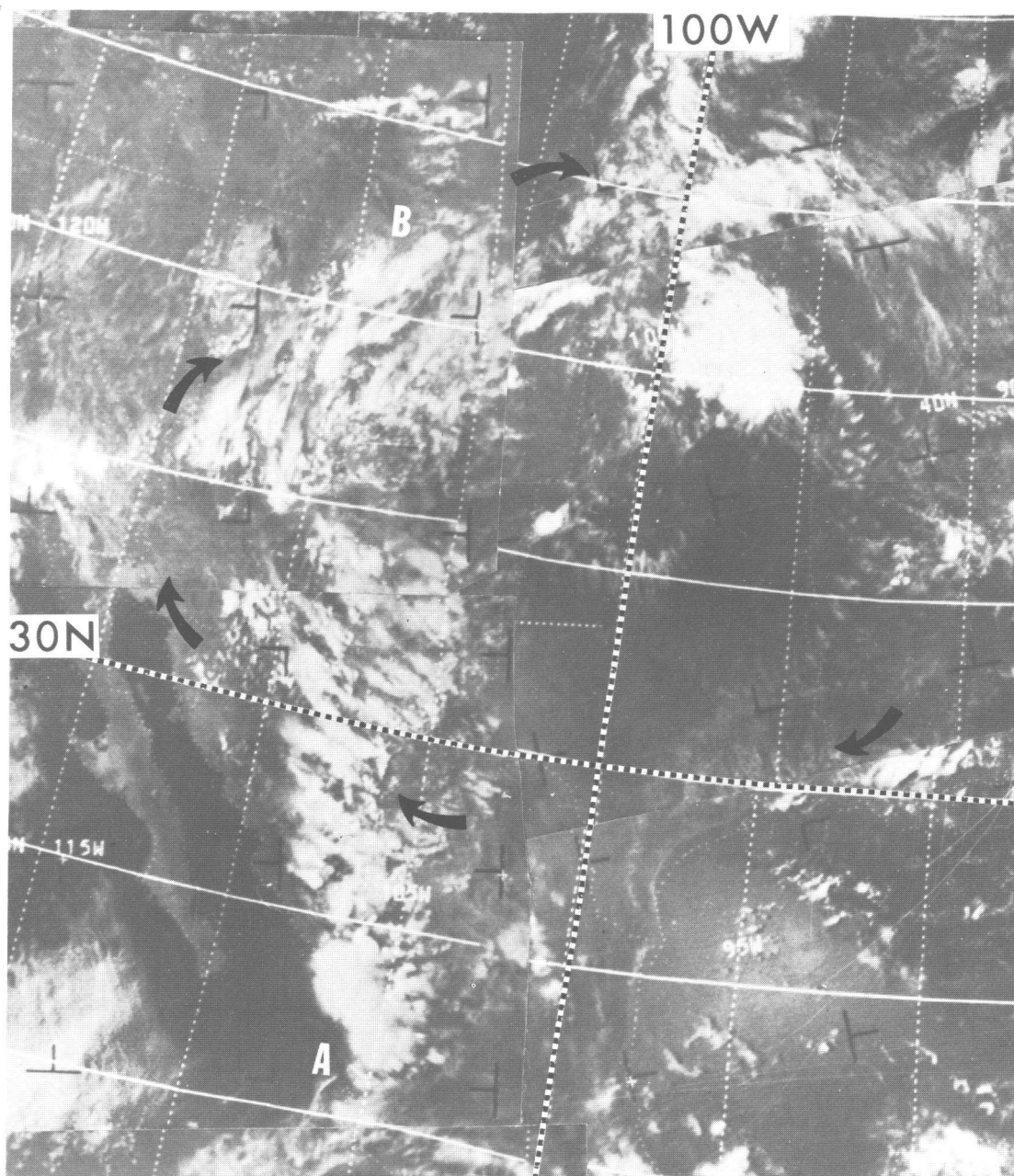


FIGURE 1.—ESSA 5, August 7, 1967, 2035–2229 GMT, Passes 1386, 1387. Arrows indicate anticyclonic flow.

figure 2 shows the surface analysis for 2100 GMT on August 7, and the reported 300-mb. winds for 0000 GMT on August 8, 1967.

The surface analysis shows a weak circulation pattern with a north-south front through the Dakotas and Nebraska, and a cold front through Wyoming and Utah. At 300 mb. a large High centered over the Texas Pan-

handle, dominates the circulation. This anticyclonic flow is evinced by the cumulonimbus cirriform plumes. The variation in the length of the cirriform plumes corresponds to changes in the wind speed aloft. Thus, in addition to locating areas of potential severe weather, these cumulonimbi reveal a considerable amount of information about the wind field in their environment.

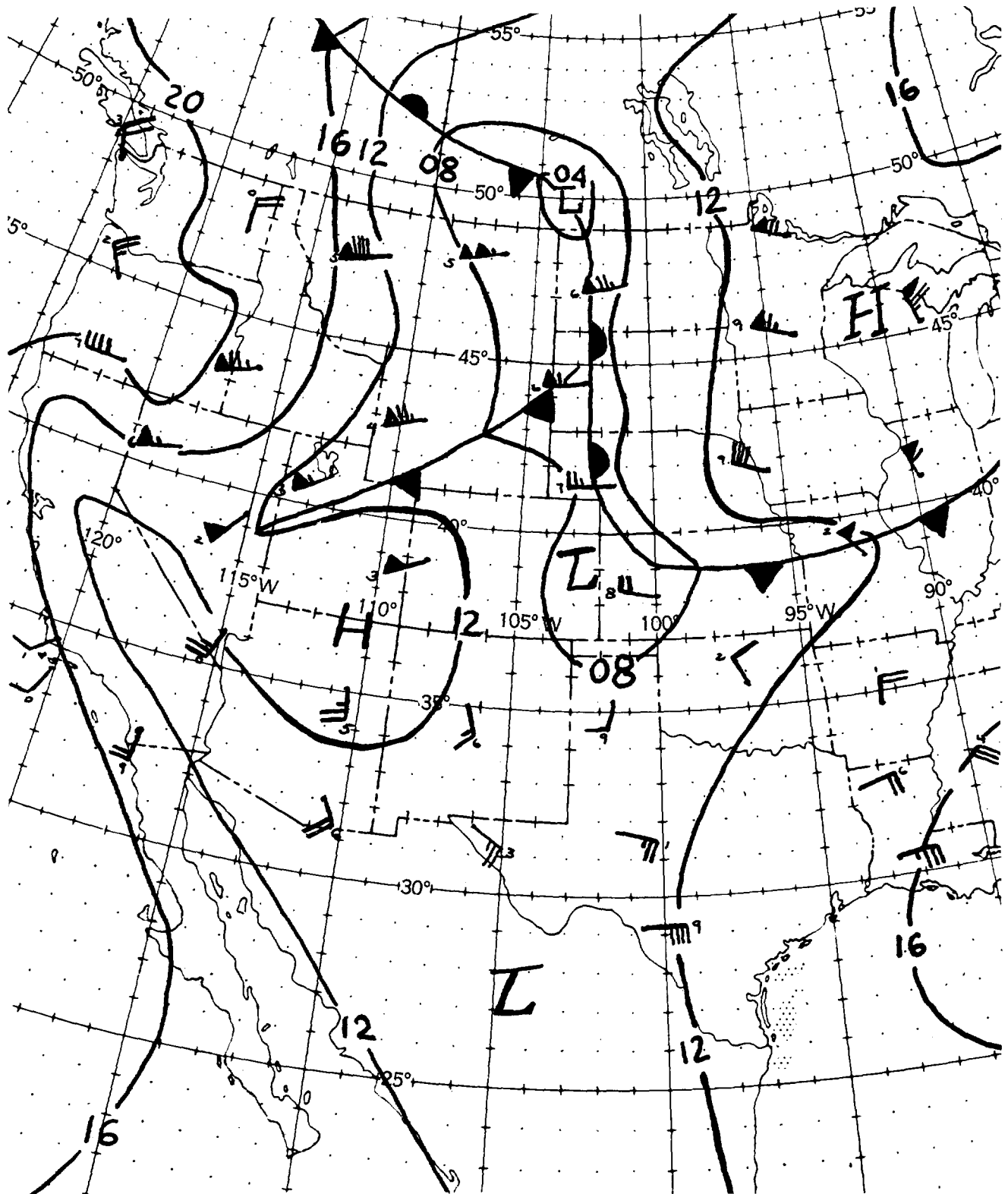


FIGURE 2.—Surface analysis, August 7, 1967, 2100 GMT, and 300-mb. reported winds, August 8, 1967, 0000 GMT.